

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
 Department for Environmental Protection
 Division of Water

401 KAR 5:030. Antidegradation policy implementation methodology.

RELATES TO: KRS 146.200 to 146.360, 146.410 to 146.535, 146.550 to 146.570, 146.600 to 146.619, 146.990, 224.01-010, 224.01-400, 224.16-050, 224.16-070, 224.70-100 to 224.70-140, 224.71-100 to 224.71-145, 224.73-100 to 224.73-120

STATUTORY AUTHORITY: KRS 146.220, 146.241, 146.270, 146.410, 146.450, 146.460, 146.465, 224.10-100, 224.16-050, 224.16-060, 224.70-100, 224.70-110, 40 C.F.R. Parts 130, 131, 16 U.S.C. 1271 et seq., 1531 et seq., 33 U.S.C. 1311, 1313, 1314, 1315, 1316, 1341, 1342, 1344

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Natural Resources and Environmental Protection Cabinet to develop and conduct a comprehensive program for the management of water resources and to provide for the prevention, abatement, and control of all water pollution. KRS 224.70-100 declares that the policy of the Commonwealth is to conserve its waters for legitimate uses and to: safeguard from pollution the uncontaminated waters of the Commonwealth, prevent the creation of any new pollution in the waters of the Commonwealth, and abate any existing pollution. This administrative regulation and 401 KAR 5:002, 5:026, 5:029, and 5:031 establish procedures to protect the surface waters of the Commonwealth, and thus protect water resources. This administrative regulation establishes a methodology to implement the antidegradation policy contained in 401 KAR 5:029 by establishing procedures to control water pollution in waters affected by that policy.

Section 1. Categorization and Implementation. The following procedures shall govern implementation of the antidegradation policy of 401 KAR 5:029, Section 1, for a point source discharge. A flow chart outlining the procedures is incorporated by reference for informational purposes in Section 3 of this administrative regulation. These antidegradation procedures shall not preempt the power or authority of a local government to provide by ordinance for a higher level of protection through antidegradation implementation for a discharger located within that local government's jurisdiction to a surface water of the Commonwealth. Surface waters shall be placed into one (1) of four (4) categories listed in this section and each category shall have implementation procedures as follows:

- (1) Outstanding national resource water. Surface waters of the Commonwealth categorized as outstanding national resource waters are listed in Table 1 of this subsection.

Table 1 SURFACE WATERS CATEGORIZED AS OUTSTANDING NATIONAL RESOURCE WATER			
Stream	Segment	River Miles	County
Red River	Upstream to Island off SR 1067 to Downstream Wild River Boundary at SR 746	49.2-68.6	Menifee/Wolfe
Underground River System	Within Mammoth Cave National Park Boundary		Edmonson/Hart/Barren
Big South Fork of Cumberland River	Downstream Wild River Boundary to Tennessee Stateline	45.0-55.2	McCreary

(a) Categorization criteria. A surface water shall be categorized as an outstanding national resource water if the surface water meets, at a minimum, the requirements for an outstanding state resource water as provided in 401 KAR 5:031, Section 8, and if the surface water demonstrates national ecological or recreational significance.

(b) Implementation procedure. Water quality shall be maintained and protected in outstanding national resource water. A new discharger or expanded discharge which may result in permanent or long-term changes in water quality is prohibited. The cabinet may approve temporary or short-term changes in water quality if the changes to the outstanding national resource water have no demonstrable impact on the ability of the water to support the designated uses.

(2) Exceptional water. Surface waters of the Commonwealth categorized as exceptional water are listed in Table 2 of this subsection.

Table 2 SURFACE WATERS CATEGORIZED AS EXCEPTIONAL WATER			
Stream	Segment	River Miles	County
BIG SANDY RIVER BASIN			
Hobbs Fork*	Mouth to Headwaters	0.0-3.8	Martin
Hobbs Fork Unidentified Tributary*	Hobbs Fork to Headwaters	0.0-0.55	Martin
Lower Pigeon Branch*	Left Fork to Headwaters	0.5-1.7	Pike
Russell Fork*	Clinch Field RR Yard off HWY 80 to Virginia Stateline	14.4-16	Pike
Toms Branch*	Mouth to Headwaters	0.0-1.4	Pike
LITTLE SANDY RIVER BASIN			
Arabs Fork*	Clay Fork to Headwaters	0.0-4.7	Carter
Big Caney Creek*	Grayson Lake to	0.0-14.9	Elliott

	Headwaters		
Big Sinking Creek*	SR 986 to Clay Fork and Arab Fork	10.7-15.2	Carter
Meadow Branch*	Mouth to Headwaters	0.0-1.4	Elliott
Middle Fork Little Sandy River*	Mouth to Sheepskin Branch	0.0-3.6	Elliott
Nichols Fork*	Green Branch to Headwaters	0.0-1.9	Elliott
Laurel Creek*	Carter School Rd Bridge to Headwaters	7.6-14.4	Elliott
LICKING RIVER BASIN			
Blackwater Creek*	Eaton Creek to Greasy Fork	3.8-11.4	Morgan
Botts Fork	Mouth to Landuse Change	0.0-2.1	Meniffee
Brushy Fork	Cave Run Lake Backwaters to Headwaters	0.6-5.0	Meniffee
Brushy Fork*	Mouth to Headwaters	0.0-5.7	Pendleton
Bucket Branch*	Mouth to Headwaters	0.0-1.9	Morgan
Craney Creek	Mouth to Headwaters	0.0-10.0	Rowan
Devils Fork*	Mouth to Headwaters	0.0-7.8	Morgan
Grovers Creek*	Kincaid Lake Backwaters to Unidentified Tributary	0.5-3.4	Pendleton
Licking River	SR 211 to unnamed Rd off Slatey Point Rd	154.5-165.0	Bath/Rowan
North Fork of Licking River*	Cave Run Lake Backwaters to Devils Fork	9.9-14.2	Morgan
Slabcamp Creek	Mouth to Headwaters	0.0-3.4	Rowan
South Fork Grassy Creek*	Mouth to Greasy Creek	0.0-19.6	Pendleton
Welch Fork*	Mouth to First Road Crossing	0.0-1.0	Meniffee
West Creek*	Mouth to Headwaters	0.0-9.5	Robertson
KENTUCKY RIVER BASIN			
Big Double Creek*	Mouth to Headwaters	0.0-6.5	Clay
Bill Branch*	Mouth to Right Fork and Left Fork Creek	0.0-2.2	Leslie
Buffalo Creek*	Mouth to Right Fork and Left Fork	0.0-1.6	Owsley
Cavanaugh Creek*	South Fork of Station Camp Creek to Foxtown Rd	0.0-5.3	Jackson
Cawood Branch*	Mouth to Headwaters	0.0-2.1	Leslie

Cedar Creek Unidentified Tributary*	Mouth to Headwaters	0.0-1.4	Owen
Chester Creek*	Mouth to Headwaters	0.0-2.8	Wolfe
Clear Creek*	Mouth to East Fork Clear Creek	0.0-8.8	Woodford
Clemons Fork*	Mouth to Headwaters	0.0-4.7	Breathitt
Coles Fork*	Mouth to Headwaters	0.0-5.5	Breathitt
Drennon Creek*	Flat Bottom Road Crossing to Town Branch	10.5-11.9	Henry
East Fork of Indian Creek*	West Fork of Indian Creek to Headwaters	0.0-8.5	Menifee
Elisha Creek*	Elisha Creek Rd Crossing to Right Fork and Middle Fork Elisha Creek	0.95-1.7	Leslie
Emily Run	Mouth to Unidentified Tributary	0.0-3.9	Henry
Evans Fork*	Mouth to Headwaters	0.0-2.9	Estill
Falling Rock Branch*	Mouth to Headwaters	0.0-0.6	Breathitt
Gladie Creek*	Mouth to Headwaters	0.0-8.4	Menifee
Glenns Creek Unidentified Tributary	Landuse Change to Headwaters	0.2-1.3	Woodford
Goose Creek	Mouth to Laurel Creek	0.0-9.3	Clay
Griers Creek*	Urban Area to Unidentified Tributary	2.9-3.4	Woodford
Grindstone Creek*	Mouth to Headwaters	0.0-2.2	Franklin
Hardwick Creek	Mouth to Little Hardwick Creek	0.0-3.2	Powell
Hell For Certain	Mouth to Big Fork	0.0-2.1	Leslie
Hines Creek*	Mouth to Hines Creek Road Crossing	0.0-2.4	Madison
Honey Branch	Mouth to Headwaters	0.0-1.4	Leslie
Hopper Cave* Branch	Mouth to Headwaters	0.0-1.6	Jackson
Indian Creek*	Backwater Kentucky River to Headwaters	0.55-4.7	Carroll
Indian Fork*	Mouth to Headwaters	0.0-3.3	Shelby
John Carpenter Fork*	Mouth to Headwaters	0.0-1.5	Breathitt
Left Fork Big Double Creek*	Mouth to Headwaters	0.0-1.5	Clay
Line Fork*	Defeated Creek to Headwaters	11.6-27.5	Letcher

Line Fork Unidentified Tributary* (LCW)	Mouth to Headwaters	0.0-0.55	Letcher
Little Millseat Branch*	Mouth to Headwaters	0.0-1.2	Breathitt
Little Sixmile Creek*	Mouth to Headwaters	0.0-5.2	Henry
Lulbegrud Creek	Mouth to Falls Branch	0.0-7.3	Clark/Powell
Middle Fork of Kentucky River	Mouth to Upper Twin Creek	0.0-12.5	Lee
Middle Fork of Kentucky River	Hyden, KY to Greasy Creek	76.1-84.0	Leslie
Middle Fork of Red River	South Fork Red River to Natural Bridge State Park Lake	1.8-8.3	Powell
Mill Creek*	Mouth to Headwaters	0.0-8.3	Owen
Millseat Branch*	Mouth to Headwaters	0.0-1.9	Breathitt
Muddy Creek*	Elliston, KY to Viney Creek	13.4-20.2	Madison
Musselman Creek*	Mouth to Headwaters	0.0-8.4	Grant
Red Bird River	Mouth to Big Creek	0.0-15.0	Clay
Right Fork of Buffalo Creek*	Mouth to Headwaters	0.0-11.2	Owsley
Roaring Fork*	Mouth to Headwaters	0.0-0.85	Breathitt
Sand Ripple Creek*	Mouth to Headwaters	0.0-3.9	Henry
Severn Creek*	Mouth to North Fork Severn Creek	0.0-2.8	Owen
Shelly Rock Fork*	Mouth to Headwaters	0.0-0.6	Breathitt
Sixmile Creek*	Little Sixmile to Dam	6.9-14.7	Henry
South Fork of Kentucky River	Mouth to Sexton Creek	0.0-27.7	Owsley
South Fork of Red River	Mouth to Sandlick Fork	0.0-3.9	Powell
South Fork of Station Camp Creek*	Mouth to Rock Lick Creek	0.0-9.6	Jackson
Spruce Branch*	Mouth to Headwaters	0.0-1.1	Leslie
Station Camp Creek*	Landuse Change to South Fork Station Camp Creek	19.0-22.3	Estill
Steer Fork*	Mouth to Headwaters	0.0-2.9	Jackson
Sturgeon Creek*	Duck Fork to Little Sturgeon Creek	1.3-13.7	Lee
Sugar Creek*	Landuse Change to Headwaters	0.8-3.8	Leslie

War Fork*	Mouth to Headwaters	0.0-13.7	Jackson
Wolfpen Creek*	Mouth to Headwaters	0.0-3.2	Meniffee
SALT RIVER BASIN			
Brashears Creek	Guist Creek to Bullskin and Clear Creek	13.0-25.5	Shelby
Cedar Creek*	Mouth to Greens Branch	0.0-5.1	Bullitt
Chaplin River*	Thompson Creek to Cornishville, KY	40.1-53.7	Washington
Guist Creek	Mouth to Jephtha Creek	0.0-15.4	Spencer
Harts Run*	Mouth to Headwaters	0.0-2.3	Bullitt
Otter Creek*	Landuse Change to East Fork and Middle Fork Otter Creek	1.7-2.7	Larue
Overalls Creek*	Mouth to Headwaters	0.0-1.3	Bullitt
Salt Lick Creek*	Mouth to Headwaters	0.0-8.4	Marion
Sulphur Creek*	Mouth to Chesse Lick and Brush Creek	0.0-9.7	Anderson
West Fork Otter Creek*	Mouth to Headwaters	0.0-4.7	Larue
Wilson Creek*	Mouth to Headwaters	0.0-17.0	Bullitt
GREEN RIVER BASIN			
Beaverdam Creek*	Mouth to Headwaters	0.0-14.1	Edmonson
Cane Run*	Nolin River Backwaters to Headwaters	1-6.5	Hart
Caney Fork*	Mouth to Headwaters	0.0-6.6	Barren
Clifty Creek*	Barton Run to Western Kentucky Parkway	7.3-17.2	Grayson
Clifty Creek*	Little Clifty Creek to Sulphur Lick	7.7-13.2	Todd
East Fork Little Barren River*	Red Lick Creek to Flat Creek	19-20.2	Metcalf
Ellis Fork*	Mouth to Headwaters	0.0-3.2	Adair
Falling Timber Creek*	Landuse Change to Headwaters	7-15.5	Metcalf
Fiddlers Creek*	Mouth to Headwaters	0.0-5.8	Breckinridge
Forbes Creek*	Mouth to Unidentified Tributary	0.0-3.9	Christian
Gasper River*	Clear Fork to Wiggington Creek	17.0-35.2	Logan
Goose Creek*	Mouth to Little Goose Creek	0.0-8.1	Casey
Green River	Downstream Mammoth Cave National Park Boundary to Lynn Camp Creek	181.7-207.8	Edmonson

Green River Unidentified Tributary*	Landuse Change to Headwaters	0.8-3.2	Adair
Halls Creek*	Unidentified Tributary to Headwaters	9.6-12.1	Ohio
Lick Creek*	Mouth to Headwaters	0.0-9.9	Simpson
Linders Creek*	Mouth to Sutzer Creek	0.0-7.7	Hardin
Little Beaverdam Creek	Mouth to SR 743	0.0-11.3	Warren
Little Short Creek*	Mouth to Headwaters	0.0-3.0	Grayson
Lynn Camp Creek*	Mouth to Lindy Creek	0.0-8.3	Hart
McFarland Creek*	Grays Branch to Unidentified Tributary	1.4-4.8	Christian
Meeting Creek*	Little Meeting Creek to Petty Branch	5.2-13.8	Hardin
Muddy Creek*	Landuse Change to Headwaters	13.0-15.5	Ohio
North Fork Rough River*	Buffalo Creek to Reservoir Dam	23.44-28.1	Breckinridge
Peter Creek*	Caney Fork to Dry Fork	11.6-18.5	Barren
Pond Run*	Landuse Change to Headwaters	1.4-6.8	Breckinridge/Ohio
Rough River*	Linders Creek to Vertrees Creek	136.9-147.8	Hardin
Russell Creek*	Mouth to Columbia WWTP	0.0-40.0	Adair
Russell Creek*	Reynolds Creek to Headwaters	55.9-68.2	Adair
Sixes Creek*	Wild Branch to Headwaters	2.0-7.5	Ohio
Sulphur Branch*	Mouth to Headwaters	0.0-2.0	Edmonson
Trammel Fork*	Mouth to Tennessee Stateline	0.0-30.15	Allen
West Fork Pond River*	Unidentified Tributary to East Branch Pond River	12.7-22.5	Christian
White Oak Creek Unidentified Tributary*	Hovious Rd Crossing to SR 76	0.4-3.0	Adair
LOWER CUMBERLAND RIVER BASIN			
Crooked Creek*	Lake Barkley Backwaters to Headwaters	4.0-9.4	Trigg
Donaldson Creek*	Craig Branch to Unidentified Tributary	6.9-10.3	Trigg
Elk Creek*	Tennessee Stateline to Dry Branch	7.5-9.8	Logan

Sugar Creek*	Lick Creek to Unidentified Tributary	2.1-6.7	Livingston
West Fork of Red River*	Tennessee Stateline to Montgomery Creek	16.1-26.5	Christian
Whippoorwill Creek*	Mouth to Vicks Branch	0.0-13.0	Logan
TENNESSEE RIVER BASIN			
Blood River*	McCullough Fork to Tennessee Stateline	12.2-15.65	Calloway
Clarks River	Persimmon Slough to Middle Fork Creek	26.6-28.4	Marshall
Grindstone Creek*	Mouth to Headwaters	0.0-2.3	Calloway
Panther Creek*	Mouth to Headwaters	0.0-5.1	Calloway
Panther Creek*	Channelization to Impoundment	1.1-6.0	Graves
Panther Creek Unidentified Tributary*	Mouth to Headwaters	0.0-2.1	Graves
Soldier Creek*	Mouth to South Fork Solider	0.0-5.3	Marshall
Sugar Creek*	Kentucky Lake Backwaters to Buzzard Roost Road	2.1-3.3	Calloway
Sugar Creek*	Mouth to Unnamed Reservoir	0.0-4.0	Graves
Trace Creek*	Mouth to Neeley Branch	0.0-3.0	Graves
West Fork Clarks River*	Soldier Creek to Duncan Creek	19.7-22.7	Graves
Wildcat Creek*	Ralph Wright Road Crossing to Headwaters	3.5-6.7	Calloway
TRADEWATER RIVER BASIN			
East Fork Flynn Fork*	Landuse Change to Headwaters	2.5-4.6	Caldwell
Piney Creek*	Lake Beshear Backwaters to Headwaters	4.5-10.2	Caldwell
Piney Creek Unidentified Tributary*	Mouth to Headwaters	0.0-2.9	Caldwell
Sandlick Creek*	Camp Creek to Headwaters	4.9-9.0	Christian
Sandlick Creek Unidentified Tributary*	Mouth to Headwaters	0.0-1.4	Christian
Tradewater River*	Dripping Springs Branch to Buntin Lake Dam	123.2-131.1	Christian
OHIO RIVER BASIN			

(Main Stem and Minor Tributaries)			
Big Sugar Creek Unidentified Tributary*	I-71 to Headwaters	1.0-3.6	Gallatin
Corn Creek Unidentified Tributary*	Mouth to Headwaters	0.0-2.0	Trimble
Crooked Creek*	Rush Creek to City Lake Dam	17.5-25.6	Crittenden
Double Lick Creek*	Mouth to Landuse Change	0.0-1.4	Boone
Garrison Creek*	Mouth to Headwaters	0.0-4.1	Boone
Kinniconick Creek*	McDowell Creek to Headwaters	5.1-50.4	Lewis
Massac Creek Unidentified Tributary*	Mouth to Headwaters	0.0-1.7	McCracken
Middle Fork Massac Creek*	Hines Road to Headwaters	3.15-6.2	McCracken
West Fork Massac Creek*	SR 725 to Little Massac Creek	3.2-5.4	McCracken
Second Creek*	Private Road Crossing to Headwaters	0.5-2.9	Boone
Yellowbank Creek*	Ohio River Backwaters to Headwaters	1.4-11.4	Breckinridge
LAKES AND RESERVOIRS			
Metropolis	Entire Lake		McCracken
Swan	Entire Lake		Ballard
MISSISSIPPI RIVER BASIN (Main Stem and Minor Tributaries)			
Jackson Creek*	Mouth to Headwaters	0.0-2.6	Graves
Obion Creek*	Hurricane Creek to Little Creek	25.2-35.5	Hickman
Terrapin Creek*	Tennessee Stateline to Headwaters	2.8-7	Graves
Murphy's Pond	Entire Pond and Preserve Area		Hickman
UPPER CUMBERLAND RIVER BASIN			
Bad Branch*	Mouth to Headwaters	0.0-3.0	Letcher
Bark Camp Creek*	Mouth to Martins Fork	0.0-3.95	Whitley
Beaver Creek*	Mouth to Freeman Fork and Middle Fork	0.0-6.5	McCreary
Bee Lick Creek	Mouth to Unidentified Tributary	0.0-5.7	Pulaski
Brownies Creek*	Blacksnake Branch to	9.0-16.0	Bell

	Headwaters		
Brush Creek	Wolf Creek to Reemergence of Sinking Creek	1.1-7.6	Rockcastle
Brushy Creek*	Mouth to Headwaters	0.0-16.0	Pulaski
Buck Creek*	Lake Cumberland Backwaters to Headwaters	5.0-62.6	Pulaski
Bunches Creek*	Mouth to Headwater	0.0-3.3	Whitley
Cane Creek*	Mouth to Headwaters	0.0-12.0	Laurel
Clifty Creek	Mouth to Rocky Branch	0.0-2.7	Pulaski
Cogur Fork*	Mouth to Headwaters	0.0-7.9	McCreary
Cumberland River	Wild River Boundaries	558.5-574.6	McCreary/ Whitley
Dog Slaughter Creek*	Mouth to North Fork and South Fork	0.0-1.1	Whitley
Eagle Creek*	Mouth to Headwaters	0.0-6.3	McCreary
Fugitt Creek*	Landuse Change to Headwaters	0.5-4.9	Harlan
Horse Lick Creek*	Mouth to Clover Bottom	0.0-12.3	Jackson
Howards Creek*	Dale Hollow lake Backwaters to Headwaters	0.8-3.4	Clinton
Indian Creek*	Laurel fork to Barren Fork	2.3-6.7	McCreary
Jackie Branch*	Mouth to Headwaters	0.0-1.7	Whitley
Kilburn Fork	Mouth to Headwaters	0.0-6.3	McCreary
Laurel Creek	Mouth to Laurel Creek Dam	0.0-9.2	McCreary
Laurel Fork*	Tennessee Stateline to Tiny Branch/Pine Creek	4.2-13.0	Whitley
Laurel Fork*	Mouth to Headwaters	0.0-12.2	Jackson
Little South Fork of Cumberland River*	Mouth to Langham Branch	0.0-35.6	Wayne
Marsh Creek*	Laurel Creek to Headwaters	8.6-26.2	McCreary
Martins Fork of Cumberland River	Wild River Boundaries	27.4-31.3	Harlan
McFarland Creek	Little McFarland Creek to Spring Branch	0.8-6.2	Monroe
Meshack Creek	Mouth to Headwaters	0.0-2.8	Monroe
Middle Fork Rockcastle River*	Mouth to Horse Lick Creek	0.0-7.8	Jackson
Mud Camp Creek*	Mouth to Collins Branch	0.0-1.3	Cumberland
Mud Camp Creek*	Unidentified Tributary to	3.7-8.4	Monroe/Cumberland

	Headwaters		
Otter Creek	Lake Cumberland Backwaters to Carpenter Fork	14.5-22.0	Wayne
Poor Fork Cumberland River*	Franks Creek to Headwaters	46.1-51.7	Letcher
Presley House Branch*	Mouth to Headwaters	0.0-1.5	Letcher
Puncheoncamp Branch*	Mouth to Headwaters	0.0-1.9	McCreary
Rock Creek*	White Oak Creek to Tennessee Stateline	4.1-21.9	McCreary
Rock Creek Unidentified Tributary*	Mouth to Headwaters	0.0-1.9	McCreary
Rock Creek Unidentified Tributary*	Mouth to Headwaters	0.0-1.15	McCreary
Rockcastle River	Wild River Boundaries	8.5-24.4	Laurel/ Pulaski
Shillalah Creek*	Mouth to Headwaters	0.0-5.5	Bell
Sinking Creek*	Mouth to White Oak Creek	0.0-9.8	Laurel
Sulphur Creek*	Dale Hollow Backwaters to Headwaters	2.0-5.1	Clinton
South Fork of Dog Slaughter Creek*	Mouth to Headwaters	0.0-4.6	Whitley
South Fork Rockcastle River	Mouth to White Oak Creek	0.0-5.6	Laurel
Watts Branch*	Mouth to Headwaters	0.0-2.6	McCreary
Watts Creek*	Lake to Headwaters	2.2-4.3	Harlan

*Waterbodies in the cabinet's reference reach network

(a) Categorization criteria. A surface water shall be categorized as an exceptional water if any of the following criteria are met:

1. Surface water is designated as a Kentucky Wild River and is not categorized as an outstanding national resource water;
2. Surface water is designated as an outstanding state resource water as set forth in 401 KAR 5:031, Section 8(1)(a)1,2, and 3 and Section 8(1)(b);
3. Surface water contains either of the following:
 - a. A fish community that is rated "excellent" by the use of the Index of Biotic Integrity included in "Development and Application of the Kentucky Index of Biotic Integrity (KIBI)", 2003, incorporated by reference in Section 3 of this administrative regulation; or
 - b. A macroinvertebrate community that is rated "excellent" by the Macroinvertebrate Bioassessment Index included in "The Kentucky Macroinvertebrate Bioassessment Index", 2003, incorporated by reference in Section 3 of this administrative regulation; or

4. Surface water in the cabinet's reference reach network.

(b) Implementation procedure.

1. Dischargers listed in clauses a through e of this subparagraph are subject to control by existing cabinet programs including the Kentucky Pollution Discharge Elimination System program. Subparagraphs 2 through 9 of this paragraph shall not apply to those dischargers identified in clauses a through e of this paragraph, except the cabinet shall assure water quality necessary to fully protect existing uses.

a. KPDES general permits for Storm water discharge;

b. Coal mining discharge subject to regulation under the Surface Mining Control and Reclamation Act, 30 U.S.C. 1201 et seq., and 33 U.S.C. 1344;

c. Domestic sewage discharge from a single-family residence;

d. Concentrated animal feeding operations; and

e. KPDES permit renewals and modifications that result in less than a twenty (20) percent increase in pollutant loading from the previously permitted pollutant loading.

2. Zones of initial dilution are prohibited in exceptional water unless assigned before the effective date of this administrative regulation.

3. Except as provided in subparagraph 7 of this paragraph, a KPDES permit for a new discharger or expanded discharge into exceptional water shall contain effluent limitations for the entire effluent and shall have an effluent quality of:

a. A chronic whole effluent toxicity limitation shall apply unless an acute whole effluent toxicity limitation is more stringent; and

b. Chloride limitations shall be based on the domestic water supply criterion of 250 mg/l.

4. Except as provided in subparagraph 7 of this paragraph, a KPDES permit for a new domestic sewage discharger or expanded domestic sewage discharge into exceptional water shall contain effluent limitations for the entire effluent and shall have an effluent quality of:

a. No greater than ten (10) mg/l five (5) day carbonaceous biochemical oxygen demand;

b. No greater than two (2) mg/l ammonia-nitrogen;

c. No greater than 0.010 mg/l total residual chlorine;

d. No greater than ten (10) mg/l total suspended solids;

e. No greater than one (1) mg/l total phosphorous;

f. A minimum of seven (7) mg/l dissolved oxygen;

g. An arithmetic mean value for fecal coliform bacteria not to exceed 200 colonies per 100 milliliters during a period of thirty (30) consecutive days or 400 colonies per 100 milliliters during a period of seven (7) consecutive days, or an arithmetic mean for Escherichia coli bacteria not to exceed 130 colonies per 100 milliliters during a period of thirty (30) consecutive days or 230 colonies per 100 milliliters during a period of seven (7) consecutive days; and

h. The discharge shall not cause the average instream dissolved oxygen concentration to be less than six and zero-tenths (6.0) mg/l.

5. Except as provided in subparagraph 7 of this paragraph, KPDES permit for a new non-domestic discharger or an expanded non-domestic discharge into exceptional water shall be restricted to no more than one-half (1/2) of the water quality based limitations that would have been permitted at standard design conditions.

6. If the permit applicant accepts the effluent limitations required by subparagraphs 3, 4, and 5 of this paragraph, the KPDES permit shall be issued with these effluent limitations and additional requirements of the Kentucky Pollution Discharge Elimination System program without further antidegradation review.

7. If the permit applicant does not accept the effluent limitations required by subparagraphs 3, 4, and 5 of this paragraph, the applicant shall demonstrate to the satisfaction of the cabinet that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the water is located. For purposes of this administrative regulation, the approval of a POTW's regional facility plan pursuant to 401 KAR 5:006 shall demonstrate compliance with the alternatives analysis and socioeconomic demonstration for a regional facility. The alternatives analysis and socioeconomic demonstration shall follow the guidelines in "Interim Economic Guidance for Water Quality Standards Workbook", EPA, March 1995 incorporated by reference in Section 3 of this administrative regulation. The alternatives analysis shall consider the following:

- a. Discharge to other treatment facilities;
- b. Use of other discharge locations;
- c. Water reuse or recycle;
- d. Process and treatment alternatives;
- e. On-site or subsurface disposal; and
- f. Any other examination of alternatives to lowering water quality to which the cabinet and the applicant can agree.

8. A permit applicant who has failed to demonstrate to the satisfaction of the cabinet the necessity for lowering water quality shall meet the effluent limitations required by this paragraph and additional requirements of the Kentucky Pollution Discharge Elimination System program.

9. A permit applicant who demonstrates to the satisfaction of the cabinet the necessity for lowering water quality shall meet the water quality based limitations as outlined in 401 KAR 5:031.

(3) High quality water.

(a) Categorization criteria.

1. A surface water shall be categorized as a high quality water if the surface water is not listed as an outstanding national resource water or an exceptional water in Table 1 or 2 of this section and if the surface water does not meet the criteria for impaired water as provided for in subsection 4(a) of this section.

2. A surface water shall be categorized as a high quality water if the surface water is listed as an outstanding state resource water in 401 KAR 5:026 and is not listed as an outstanding national resource water or an exceptional water in Table 1 or 2 of this section.

(b) Implementation procedure. KPDES permit applications for discharges into high quality water received after U.S. EPA approval of this subsection shall comply with this paragraph.

1. Dischargers listed in clauses a through e of this subparagraph are subject to control by existing cabinet programs including the Kentucky Pollution Discharge Elimination System program. Subparagraphs 2 through 6 of this paragraph shall not apply to those dischargers identified in clauses a through e of this paragraph, except the cabinet shall assure water quality necessary to fully protect existing uses.

- a. KPDES general permits for storm water discharge;
- b. Coal mining discharge subject to regulation under the Surface Mining Control and Reclamation Act, 30 U.S.C. 1201 et seq., and 33 U.S.C. 1344;
- c. Domestic sewage discharge from a single-family residence;
- d. Concentrated animal feeding operations; and
- e. KPDES permit renewals and modifications that result in less than a twenty (20) percent increase in pollutant loading from the previously permitted pollutant loading.

2. Except as provided in subparagraph 5 of this paragraph, a KPDES permit for a new domestic sewage discharger or expanded domestic sewage discharge into high quality water shall contain effluent limitations for the entire effluent and shall have an effluent quality of:

- a. No greater than ten (10) mg/l five (5) day carbonaceous biochemical oxygen demand;
- b. No greater than two (2) mg/l ammonia-nitrogen;
- c. No greater than 0.010 mg/l total residual chlorine;
- d. No greater than ten (10) mg/l total suspended solids;
- e. No greater than one (1) mg/l total phosphorous;
- f. A minimum of seven (7) mg/l dissolved oxygen; and
- g. An arithmetic mean value for fecal coliform bacteria not to exceed 200 colonies per 100 milliliters during a period of thirty (30) consecutive days or 400 colonies per 100 milliliters during a period of seven (7) consecutive days, or an arithmetic mean for *Escherichia coli* bacteria not to exceed 130 colonies per 100 milliliters during a period of thirty (30) consecutive days or 230 colonies per 100 milliliters during a period of seven (7) consecutive days.

3. Except as provided in subparagraph 5 of this paragraph, a KPDES permit for a new nondomestic discharger or an expanded nondomestic discharge into high quality water shall be restricted to no more than one-half (1/2) of the water quality based limitations that would have been permitted at standard design conditions.

4. If the permit applicant accepts the effluent limitations required by subparagraphs 2 and 3 of this paragraph, the KPDES permit shall be issued with these effluent limitations and any additional requirements of the Kentucky Pollution Discharge Elimination System program without further antidegradation review.

5. If the permit applicant does not accept the effluent limitations required by subparagraphs 2 and 3 of this paragraph, the applicant may request water quality based limitations permitted at standard design conditions. In making this request, the applicant shall demonstrate to the satisfaction of the cabinet that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the water is located. For purposes of this administrative regulation, the approval of a POTW's regional facility plan pursuant to 401 KAR 5:006 shall demonstrate compliance with the alternatives analysis and socioeconomic demonstration for a regional facility. The alternatives analysis and socioeconomic demonstration shall consider the following:

- a. Discharge to other treatment facilities;
- b. Use of other discharge locations;
- c. Water reuse or recycle;
- d. Process and treatment alternatives;
- e. On-site or sub-surface disposal;
- f. Any other examination of alternatives to lowering water quality to which the cabinet and the applicant can agree;
- g. The positive or beneficial effect of the facility on an existing environmental or public health problem;
- h. The increase or avoidance of a decrease in employment;
- i. The increase in production level;
- j. The increase in operational efficiency;
- k. Industrial or commercial benefit to the community; and
- l. Any other economic or social benefit to the community.

6. A permit applicant who has failed to demonstrate to the satisfaction of the cabinet the necessity for lowering water quality shall meet the effluent limitations required by this paragraph and additional requirements of the Kentucky Pollution Discharge Elimination System program.

7. A permit applicant who demonstrates to the satisfaction of the cabinet the necessity for lowering water quality shall meet the water quality based limitations as outlined in 401 KAR 5:031.

(4) Impaired water.

(a) Categorization criteria. A surface water categorized as impaired for applicable designated uses shall be a water identified pursuant to 33 U.S.C. 1315. Surface water categorized as impaired shall be assessed by the cabinet as not fully supporting any applicable designated uses. A surface water shall not be categorized as impaired water if the surface water is listed as an outstanding state resource water in 401 KAR 5:026.

(b) Implementation procedure. All existing uses shall be protected and the level of water quality necessary to protect those existing uses shall be assured in impaired water. The process to allow a discharge into an impaired water and to assure protection of the water is regulated by the requirements in the Kentucky Pollution Discharge Elimination System program.

Section 2. Procedure for Recategorizing Water. This section shall apply to the recategorization of surface water to outstanding national resource water and exceptional water. The redesignation of water to outstanding state resource water shall be governed by the procedures in 401 KAR 5:026.

(1) The cabinet may propose to recategorize certain water to outstanding national resource water and exceptional water.

(a) If the cabinet proposes to recategorize these waters, it shall provide notice and an opportunity for public hearing.

(b) The cabinet shall provide the documentation requirements of this section for those surface waters it proposes to recategorize.

(2) A person may request recategorization of a surface water to an outstanding national resource water or exceptional water by filing a petition with the cabinet.

(a) The petition shall include the name and address of the petitioner and the information and documentation necessary to recategorize the particular water as required by subsection (4) of this section;

(b) The petitioner shall have the burden of proof that the recategorization is appropriate.

(c) The cabinet shall provide notice of the petition and an opportunity for a public hearing.

(d) The cabinet shall review the petition, supporting documentation, and any comments received from the public to determine if the proposed water qualifies for recategorization.

(e) The cabinet shall document the determination to grant or deny recategorization as a result of a petition, and shall provide a copy of the decision to the petitioner and other interested parties.

(3) If a water is to be recategorized, the cabinet shall publish notice of the recategorization. Any permit issued after the date of publication shall be issued with limitations based on the new category. When the cabinet reviews its water quality standards pursuant to the provisions of Section 303 of the Clean Water Act, the cabinet shall propose to have all recategorized water promulgated as an amendment to this administrative regulation.

(4) The following information, documentation, and data shall support a petition for recategorization:

(a) A petition for outstanding national resource water shall include:

1. A United States Geological Survey 7.5 minute topographic map or its equivalent as approved by the cabinet showing those surface waters to be recategorized including a description consisting of a river mile index with any existing and proposed discharge points;
 2. Existing uses and water quality data for the surface water for which the recategorization is proposed. If adequate data are unavailable, additional studies may be required by the cabinet;
 3. Descriptions of general land uses and specific land uses adjacent to the surface water for which the recategorization is proposed;
 4. The existing and designated uses of the water upstream and downstream of the proposed recategorized water;
 5. General physical characteristics of the surface water including width, depth, bottom composition, and slope;
 6. The frequency of occasions when there is no natural flow in the surface water, and the 7Q₁₀ and harmonic mean flow values for the surface water and adjacent surface waters;
 7. An assessment of the existing and potential aquatic life habitat in the surface water under consideration and the adjacent upstream surface waters. The existing aquatic life shall be documented including the occurrence of individuals or populations, indices of diversity and well-being, and abundance of species of any unique native biota;
 8. A documented rationale as to why the water qualify for the recategorization; and
 9. The rationale used to support the national significance of the water.
- (b) A petition for exceptional water shall include the following:
1. A United States Geological Survey 7.5 minute topographic map or its equivalent as approved by the cabinet showing the surface water to be recategorized including a description consisting of a river mile index with existing and proposed discharge points;
 2. Descriptions of general land uses, including mining, agricultural, recreational, low, medium, and high density residential, commercial, and industrial, and specific land uses adjacent to the surface water for which the recategorization is proposed;
 3. The frequency of occasions when there is no natural flow in the surface water, and the 7Q₁₀ and annual mean flow values for the surface water; and
 4. Fish or benthic macroinvertebrate collection data and an Index of Biotic Integrity or Macroinvertebrate Bioassessment Index calculation from a waterbody if criteria specified in Section 1(2)(a)3. of this administrative regulation are utilized.

Section 3. Incorporation by Reference. (1) The following material is incorporated by reference:

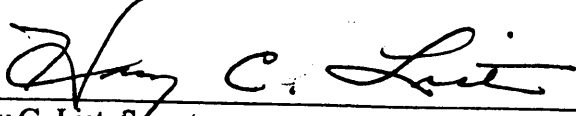
- (a) "Development and Application of the Kentucky Index of Biotic Integrity (KIBI)", 2003, Kentucky Division of Water, Natural Resources and Environmental Protection Cabinet;
 - (b) "The Kentucky Macroinvertebrate Bioassessment Index", 2003, Kentucky Division of Water, Natural Resources and Environmental Protection Cabinet;
 - (c) "Interim Economic Guidance for Water Quality Standards Workbook", EPA, March 1995 Publication EPA-823-B-95-002, U.S. Environmental Protection Agency, Office of Water, Washington, D.C.; and
 - (d) "401 KAR 5:030 Antidegradation Implementation Procedures Process Flow Chart", May 25, 2004, KPDES Branch, Kentucky Division of Water, Kentucky Department for Environmental Protection.
- (3) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division of Water, 14 Reilly Road, Frankfort, Kentucky, Monday through Friday, 8 a.m. to

5:030

4:30 p.m.

401 KAR 5:030 Approved for promulgation:

12/3/2003
Date


Henry C. List, Secretary
Natural Resources and Environmental
Protection Cabinet